

NRO REVIEW COMPLETED

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PROPOSED INITIAL PRESS RELEASE:

The Air Force will launch its first satellite from Vandenberg Air Force Base, California, Pacific Missile Range late this year or early next year, it was announced today by Roy W. Johnson, Director of the Advanced Research Projects Agency. This satellite is part of a series of missile and vehicle launchings designated "DISCOVERY" which will be conducted under the auspices of ARPA by the Air Research and Development Command's Ballistic Missile Division.

The purpose of this series is to further the development of a number of systems and techniques which will be employed in the production and operation of space vehicles for either peaceful or military purposes. Initial launchings will have as their primary objective the testing of the vehicle itself and of vehicle subsystems including propulsion and guidance. Later vehicles in the series will carry biomedical specimens and will obtain valuable data on environmental conditions useful to the NASA/ARPA joint Man-in-Space program. Recovery of the live animals carried aloft in these launchings will be attempted and they will therefore serve to develop the techniques involved in carrying out the recovery of a payload from an orbiting vehicle.

Much of the data expected to be derived from the "DISCOVERY" series, such as the results of the biomedical flights, will be of general scientific interest and will be unclassified. Other results which will be highly significant for the development of later systems and techniques for space navigation, may be of potential military significance and as such will be classified.

The "DISCOVERY" vehicle was developed under contract with the Lockheed Aircraft Corporation for this project by ARPA directive issued early this year and will be placed in orbit by a Thor booster. The combination is believed capable of orbiting considerably heavier satellites than any previously launched by the United States. Initial versions of the "DISCOVERY" will orbit for short periods of time at relatively low altitudes.

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3. Explanation of DISCOVERY: The major stated purpose of the DISCOVERY series will be the development of hardware ultimately useable for either military or peaceful scientific purposes. Specifically it will be said to involve the study of stabilization, orbit ejection, recovery techniques, vehicle separation as related to re-entry, and engine-fuel reliability. All of these investigations are necessary for the development of space vehicles and to advance the state of the art in pilotless space operation. Included in the explanation will be the statement that several of the DISCOVERY series are to carry biomedical payloads to test environmental conditions of the upper atmosphere. These flights will be reported as contributing to the joint NASA/ARPA Man-In-Space program.

4. Additional Explanations:

a. Patrick Air Force Base is crowded and new facilities will be available at the Pacific Missile Range so launchings will be conducted from the latter location. Range safety considerations make it impossible to launch in an easterly direction and take advantage of the speed of the earth's rotation. To launch in a westerly direction would be to accept too large a speed penalty. Accordingly, it is necessary to accept the 165° - 180° direction of launch which implies a polar orbit.

b. The use of polar orbits will have the further advantage of permitting an exercise in the near future of the early warning net established to guard against enemy attack.

c. Later launchings will contain equipment to study solar power, infra-red early warning and terminal guidance control, and to conduct model testing of maneuverable space vehicles.

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